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ABSTRACT

An analysis of terminology for "canoe" in Bantu languages first gives some background information on early wooden canoes in Subsaharan Africa, then examines the origins of nominal stems for "canoe" in those languages. It is noted that a nominal stem identified early in the history of Bantu comparative linguistics is found in about 160 of the approximately 200 Bantu languages, but that the problem of the initial consonant has remained unsolved. Phonological and morphological patterns are traced in a number of the languages. It is concluded that in general, Bantu language have conserved the proto-Bantu nominal stem for "canoe." Two main geographic centers of lexical innovation are identified. A map illustrating the distribution of specific stems is included. Contains 32 references. (MSE)

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Some nominal stems for 'canoe' in Bantu languages

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27th CALL, Leiden, August 1997.

Introduction

Long before people invented the wheel or before they began using animals as a means of locomotion, transport by waterways was commonly known throughout the world. Different types of rafts, from the simple floating tree trunk to huge calabashes, have always been and are still being used. The most ancient technique of boat-building, attaching animal skins to a frame, is quite complicated, and it is thus not surprising that man soon found an alternative, the dug-out canoe. The technologies used in fabrication of the dug-out, controlled burning and carving, are after all much easier to handle.

The oldest dug-out canoe in the world has been found in the Netherlands and has been dated to around 8000 BP. The one which is of more interest to us, the oldest trace of a wooden canoe in Subsaharan Africa, has been excavated in Dufuna in northern Nigeria. This canoe is slightly younger than the one found in Pesse, but with its presumed age of about 7200 years, it is still one of the oldest in the world. The Dufuna canoe, however, is much more elaborate than contemporary European canoes, with a bow and stern that are carefully worked to points (Breunig, sd, 465). This implies that this canoe must be part of an older naval tradition, which developed independently, and that the origin of water transport in Africa lies even further back in time.

Linguistic discussion

Considering the lexical data, it is clear that the Bantu languages inherited a generic nominal stem for *'canoe'* together with the object, from an earlier era. One nominal stem signifying *'canoe'* was reconstructed early in the history of Bantu Comparative Linguistics. In this corpus of about two hundred Bantu languages the nominal stem *-á t ɔ occurred about one hundred and sixty times. The distribution of this nominal stem is general throughout the Bantu area, although one can observe a blank on the east coast and a fragmented distribution in zone S which is caused by climatological and environmental factors. The reflexes of this nominal stem are furthermore distributed in a very dispersed manner in the zones bordering the west coast (see Map 1).

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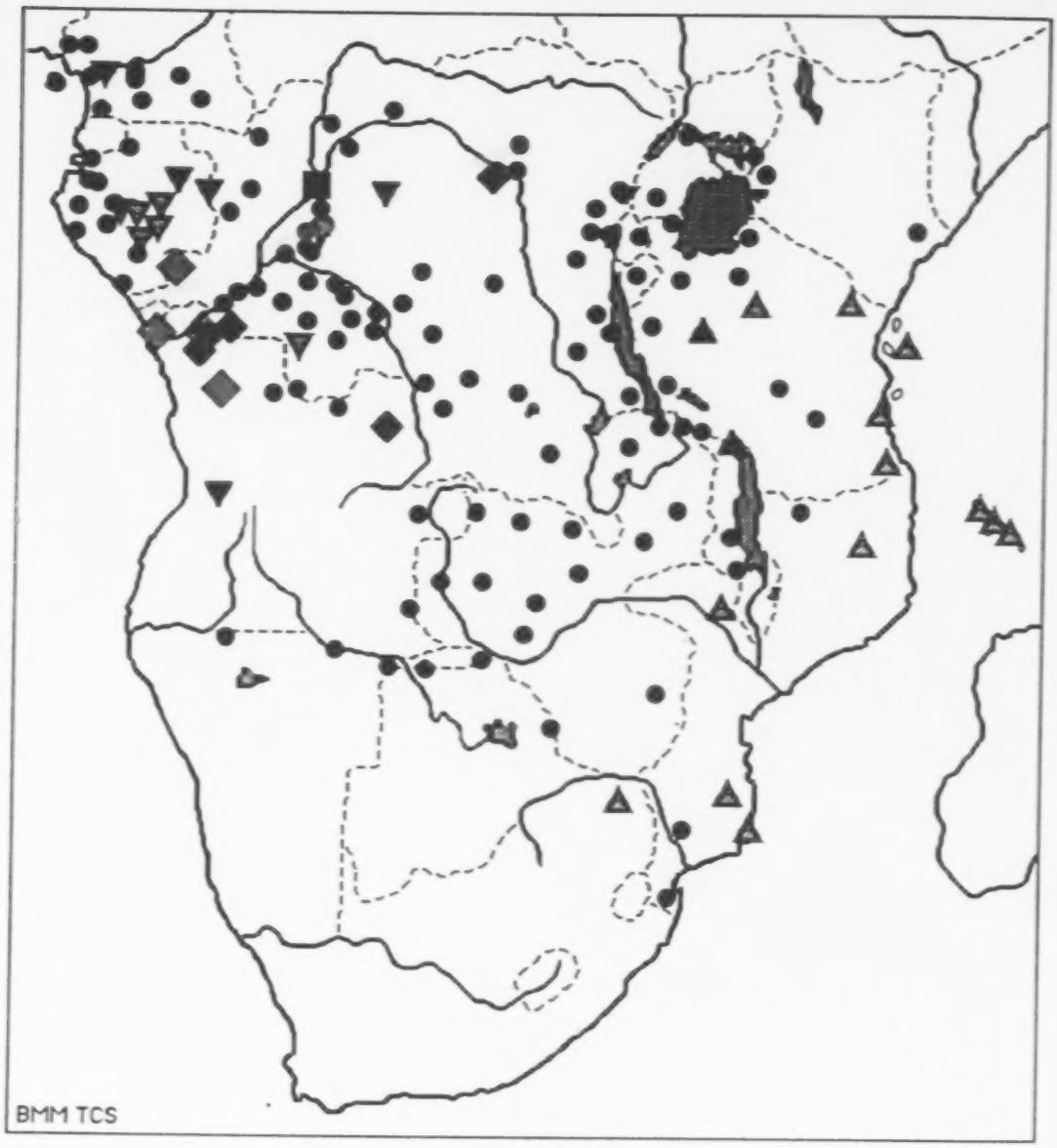

■ C32 Bobangi

◆ *-átɔ + °-longo

▲ *-átɔ + °ngalawa

▼ *-átɔ + °-béngò

◆ °-longo

△ °ngalawa

▽ °-béngò

● *-átɔ

Map 1
General distribution of nominal stems meaning 'canoe'.

Although the reconstruction of the nominal stem has been acknowledged by different authors, the problem of the initial consonant remained unsolved. The former propositions are shown in (1). Whereas Meinhof and Van Warmelo and Greenberg propose a -VCV nominal stem, the other authors reconstructed a consonant-initial nominal stem.

(1) Former reconstructions :

Reconstructed form		Meaning	Source
*-gato	14	canoe	(Homburger, 1914, 358)
*-ato	14	boat, canoe	(Meinhof & Van, 1932, 187)
*-átɔ		boat	(Greenberg, 1948, 202)
*-yátɔ	14-6	canoe	(Guthrie, 1970, 154)
*-(j)átɔ	14	(boat) canoe	(Meeussen, 1980, 21)

In my data only four languages, listed under (2), attest such a consonant-initial nominal stem :

(2) *-(j)átɔ or *-átɔ ?

Language		Noun		Meaning	Source
a) Kota	B25	-yàzí	7-14	canoe	(Piron, 1990, 173)
b) Masaba	J31	-háárɔ	5-6	canoe	(Siertsema, 1981, 14)
c) Pende	L11	-wátɔ	5Ø-6	canoe	(Niyonkuru, 1978, 161)
d) Bukusu	J31c	-járɔ	5-6	boat, canoe	(De Blois, 1975, 184).

In Kota this initial consonant is due to reclassification of the nominal stem. I compared two dialectal variants of Kota, Kota Mandungwe and Northern Kota.

(3) Northern Kota (Jacquot, 1983, 276) vs. Kota mandungwe (Piron, 1989, 84) :

Northern Kota	Gender	Kota mandungwe	Gender	Meaning
yàzí - bwàzí	19-14	èyàzí - bwàzí	7-14	canoe
íɲɔdì - bóɲɔdì	19-14	ìɲɔdí - bòɲɔdí	9i-14	bird
ìkáyì - bòkáyì	19-14	ìkáí - bòkáí	9i-14	leaf
íyɔ - bóyɔ	19-14	yɔ - bòyɔ	9-14	sleep

In northern Kota the gender of the nominal stem **-àzí** is 19-14, with the noun prefix of class 19 being **i**. In the other Kota variant, this class 19 doesn't exist any longer and the nominal stems have been reclassified. The nominal stem signifying *'canoe'* has now obtained the irregular 7-14 gender. The noun prefix of class 7, **è-**, has been pre-prefixed to the former class 19 prefix, thus creating the illusion that the semivowel is the initial consonant of the nominal stem.

In contemporary Masaba (J31) (Siertsema, 1981, 183-186), **/bw/ ~ /w/ ~ /h/ ~ /Ø/** are allomorphs. One can easily imagine the following evolution :

***bò-ɨ́tɜ** 14-6 > **°bwɨ́rɜ** > **°hwɨ́rɜ** > **°-hɨ́ɨ́rɜ** 5-6 *'canoe'*.

in which the initial **b** has weakened to an uvular fricative and is no longer recognized as part of the noun prefix which has been integrated in the nominal stem. By analogy to the plural noun class 6, the nominal stem has consequently been reintegrated into the gender 5-6.

Integration of the noun prefix of class 14 into the nominal stem also accounts for the consonantal initial in Pende, where the nominal stem has been reinterpreted as **-wɨ́tɜ** 'canoe'. The gender 5Ø-6 being very common in Pende, the speakers have reclassified the nominal stem in this way :

°ò-ɨ́tɔ 14-6 > **°wɨ́tɔ** > **°-wɨ́tɔ** 5Ø-6 *'canoe'*.

The last consonant initial reflex of the nominal stem ***-ɨ́tɜ** has been found in Bukusu (J31c) where its initial consonant is due to descriptive choices of the author. Although none of the nominal stems mentioned in (4) surfaces with an initial consonant, the author proposes the following underlying forms with an initial palatal consonant.

(4) Bukusu (J31c) (De Blois, 1975, 183-185)

	Reconstruction	Underlying form	Realisation
canoe	***-ɨ́tɜ** 14	**-jɨ́rɜ** 5	[lɪ́lyà:rɜ]
finger-nail	***-jɨ́dà** 11	**-jɨ́là** 11	[lɪ́ɪ́wà:là]
tooth	***-jɪ́nɜ** 5	**-jɪ́nɜ** 5	[lɪ́lì:nɜ]

In short one can conclude that none of the consonant initial nominal stems that are attested in this corpus provide convincing proof for a -CVCV stem reconstruction. The nominal stem ***-ɨ́tɜ** 'canoe' in gender 14-6 seems to account for all contemporary reflexes.

In (5) some of the most common sound correspondences have been listed :

(5)

Language		S.C.	Reflex of *-ɨ́tɔ̀		Meaning
Kwanyama	R21	*a > a	-ɨ́tɔ̀	14-6+14	canoe
Duala	A24	*a > ɔ	-ɔ́lɔ̀	14-4	canoe
Kele	C55	*t > t	wátɔ̀	14-6	canoe
Mbuun	B87	*t > r	bwár	14	canoe
Puku	A32	*t > l	-álò	14-4	canoe
Ngongo	B80	*t > d	-àd	14-6+14	canoe
Pogoro	G51	*ɔ > ɔ	-atɔ	14-6	boat
Seki	B21	*ɔ = i	-wátʃì	5Ø-6	canoe
Ewondo	A72a	°H-L > H-L	-âl	14-6	boat
Luba sh	L33	°H-L > L-H	-àtɔ́	14-6	canoe, boat
Punu	B43	°H-L > H-H	-ɨ́ɨ́tɨ́	14-6	canoe
Sukuma	F21	°H-L > L-L	-àtɔ̀	14-6	canoe

I have already mentioned that, although reflexes of the nominal stem *-ɨ́tɔ̀ are widely used throughout the Bantu domain, two main centres of lexical innovation exist. On the east coast and in the regions further inland numerous reflexes of the noun °ngalawa have been found.

(6)

Language		Noun		Meaning	Source
Nyamwezi	F22	ngalava	5-6	boat, canoe	(Maganga, 1992)
Pare	G22	ngàlàwà	9-10	canoe	(Kagaya, 1989, 146)
Swahili	G42	ngarawa	9-10/6	outrigger canoe	(Sacleux, 1891, 732)
Makonde	P23	ingalava	9-10	boat, canoe	(Guerreiro, 1963, np)
Tswa	S51	yingalava	9-10	sail-boat	(Persson, nd, 104)

This loanword from Mahrati, an Indian language, has been adopted together with the object it originally designed, a double outrigger canoe. Swahili, as a commercial language and as the language of naval specialists, has without any doubt played an intermediary role in the ensuing dispersion of this nominal stem throughout the region. During this dispersal the stem progressively lost its more specific meaning and has come to design different types of boats and canoes, with or without sails.

On the opposite side of the continent one finds two independent innovations : °-bɛ́ngɔ̀ and °-lɔ́ngɔ̀. The first one, °-bɛ́ngɔ̀, is attested in a widespread area coinciding with the banks of the river Congo and its tributaries. Reflexes are attested in zones A, B, C, H and R, as noted in (7).

(7) Reflexes of °-bɛ́ngɔ̀ *'canoe'*:

Language		Nominal stem		Meaning	Source
Basaa	A43	-ɔŋgɔ́	3-4	canoe	(Letac, 46)
Wumbvu	B24	-bʉ́ŋgà	9-6+9	canoe	(Jacquot, 1983, 230)
Bobangi	C32	-éngɔ̀	14-6	canoe	(Whitehead, 1899, 286)
Suku	H32	-búngú	9-10	boat	(Piper, 1977, 112)
Umbundu	R11	-pungu	14-8	boat	(Da Costa, 1894, 12)

Except for the identity of its vowels, whose reconstruction remains quite arbitrary, the formal reconstruction of this regional nominal stem is certain. But what about its meaning ? The nominal stems in (7) all design canoes or boats, but when observing neighbouring languages in (8) one notices a similar nominal stem which designates *'a harbour'* or *'a beach'*.

(8) Reflexes of °-bɔ́ngɔ̀ *'beach'*:

Language		Nominal stem		Meaning	Source
Yansi	B85	-bongo	5-6	harbour	(Nguma, 1986, 202)
Lingala	C36d	-bɔ́ngɔ́	5-6	riverside	(V. Everbroeck, '85, 85)
Lega	D25	-bɔ́ngɔ̀	5-6	riverside	(Terashima, 1991, 22)
Mbala	H41	-bʉ̀ʉ̀ngʉ̀	13-11	beach	(Mudindaambi, '81, 663)

These two different sets of meanings are in fact very close to one another. *-ɛ̀tɔ̀ being the proto-nominal stem for *'canoe'* and the distribution area of reflexes of °-bɔ́ngɔ̀ *'beach'* being much larger than the one of °-bɛ́ngɔ̀ *'canoe'*, the new meaning of °-bɛ́ngɔ̀ *'canoe'* has probably been derived from °-bɔ́ngɔ̀ *'beach'*. The hypothetical procedure of this semantic change is shown in (9).

(9)

°-bɔ́ngɔ̀ : 'beach' → 'where the canoes are' → 'at the canoes' → 'canoe'.

Another innovation has taken place in the region of the Congo Delta. In zones B, C, H and K one finds numerous reflexes of the nominal stem °-longo. Some of these reflexes can be found under (10).

(10) Reflexes of °-longo *'canoe'*:

Language		Nominal stem		Meaning	Source
Laali	B73b	-lɑ́ŋɑ́ngɔ̀	5Ø-6	canoe	(Bissila, 1991, 11)
Bobangi	C32	-lɔ́ngɔ́	3-4	large canoe	(Whitehead, 1899, 286)
Suundi	H13b	-lɑ́ŋɑ́ngɑ̀	14-6	canoe	(Baka, comm.)
Ciokwe	K11	-lungu	11	large boat	(Mac Jannet, 1949, 8)

Contrary to °-béngɔ́ which seems to have adopted a generic meaning, for °-longo one often finds the more specific meaning of *'a large canoe'*. Some languages do still use a reflex of *-ɛ́tɔ́ as the generic term while they have adopted °-longo with this more specific meaning. Once again one needs to question the origin of this lexical innovation. Mbala, another language of zone H, has a similar nominal stem -lɑ̀ŋɑ́ngɑ̀ which signifies *'a tree with sticky sap'*.

(11) Reflexes of °-longo *'Symphonia Globulifera'*:

Language		Nominal stem		Meaning	Source
Kundu	A11c	-longo		Symphonia Globulifera	(Taillfer, 1989, 637)
Tetela	C71	-lɔ́ngɔ́	3-4	Symphonia Globulifera	(Hagendorens, 1975, 285)
North Binja	D24	-rungu	7-8	Symphonia Globulifera	(Taillfer, 1989, 637)
Mbala	H41	-lɑ̀ŋɑ́ngɑ̀	5-6	a tree with sticky sap	(Mudindaambi, 1981, 780)
Ngangela	K12b	-lungu	3-4	a tree with good wood	(Balao, 1939, 93)

With the help of dr. Beeckman of the Africa Museum of Tervuren I was able to identify this tree, which is named °-longo in Bantu languages, as Symphonia Globulifera, and soon noticed that the area of distribution of °-longo *'canoe'* fits entirely within the area of distribution of this tree on the African continent. Symphonia Globulifera grows from the Gulf of Guinea up to Kisangani in the East, while the distribution of reflexes of °-longo *'canoe'* is limited to the west of this area.

This tree possesses an essential quality for boatbuilding. While its diameter of about 1m doesn't allow canoes to be carved from its trunk, its sap, once it has solidified, forms an excellent waterproof coating for canoes. One can thus imagine that this nominal stem °-longo originally signified *'Symphonia Globulifera'*. Boat-building people probably soon began to name the waterproofing technique after the origin of the sap they used. The progressive dispersal of this kind of treated canoes to non-maritime peoples can have caused the latter to name the canoe itself after the technique.

When one compares the distribution maps of both °-béngɔ̀ and °-longo, their complementarity is quite remarkable. In this corpus I found only one language, Bobangi, that posseses reflexes of both nominal stems. The Bobangi live alongside the river Ubangi and are aquatic specialists. At the end of the nineteenth century their language was spoken alongside the western part of the Congo river into the Kongo area. It is thus not an unlikely hypothesis that Bobangi as a widely-used trade language influenced neigbouring languages in their maritime vocabulary.

Another type of innovation of nominal stems for *'canoe'* needs to be mentioned here. In different Bantu languages, the formal analogies between containers and boats caused speakers to use one word to name both objects. This can be compared to the English situation where the word *'vessel'* signifies both *'container'* and *'boat'*. Some examples are shown in (12).

(12) Analogy container - boat :

Language		Noun		Meaning	Source
Nen	A44	ìsɔ̀y	7-8	wooden dish - canoe	(Dugast, 1967, 87)
Mpongwe	B11a	owaro	14-6	canoe	(Walker, 1939, 476)
		epɛlɛ z'owaro		oval dish	
Sangu	B42	-búngù	9-2+10	canoe	(Ondo, 1988, 344)
		-búngù	7-8	pot	
Swahili	G44	chombo	7-8	container - boat	(Sacleux, 1891, 98)

Conclusion

In general, Bantu languages seem to have well conserved the proto-Bantu nominal stem *-ɓɪʒ. Its reflexes are so largely attested throughout the whole of the Bantu domain that it is worthwile to check if traces of this stem can be found in other branches of the Benue-Congo or even Niger-Congo family. In (13) one notices that the proto-Benue-Congo reconstruction is closely related to the proto-Bantu nominal stem. The nouns found in some Kwa and Voltaic languages even seem to suggest a possible Niger-Congo history for this nominal stem, but this hypothesis has to be verified with more and more recent data.

(13) Nominal stems in Niger-Congo languages :

Family	Language	Noun		Source
Benue-Congo	Proto-Yukuben-Kutep	*ku-yat	canoe	(Shimizu, 1971, 185)
	Tiv	tsɜ̀	boat	(Terpstra, 1968, 10)
	Proto-Benue-Congo	*bu-atumu	canoe	(De Wolf, 1971, 57)
Kwa	Izon	ɓrɞ́	boat	(Williamson, 1983, 10)
	Udso	arɔ	canoe	(Koelle, 1854, 94-95)
Voltaic	Moore	arɔngɔ	canoe	(op. cit. p. 94-95)
	Gurma	bĩãru	canoe	(op. cit. p. 94-95)

Next to the more conservative Bantu languages two main centers of lexical innovation have been identified, one on the Swahili coast, and one in the area delimited by the loop of the river Congo in Western-Central Africa. Especially in the latter case, Bantu languages indigenous innovations force us to take into account the importance of the environment and the influence of specialists, in this case boat-builders, on neighbouring languages.

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